

Fig.1

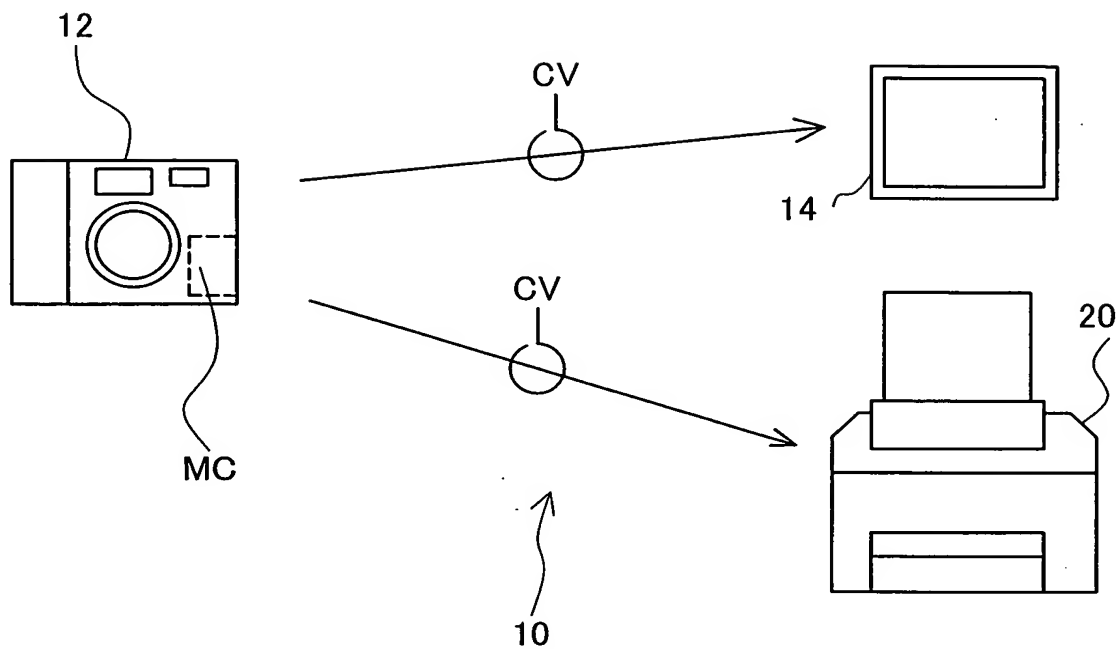


Fig.2

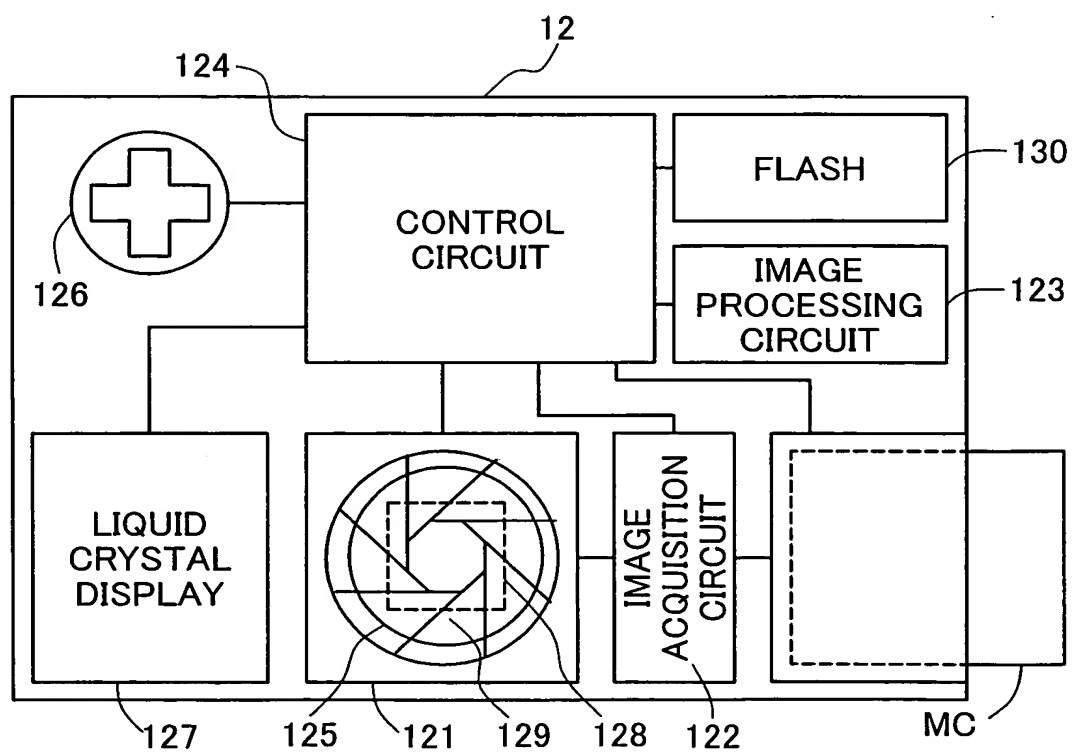


Fig.3

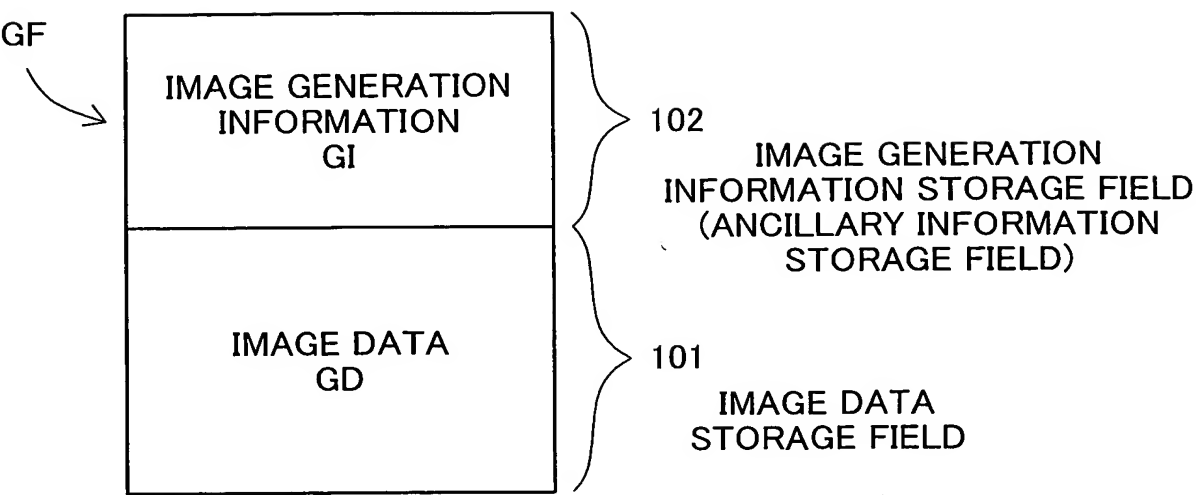
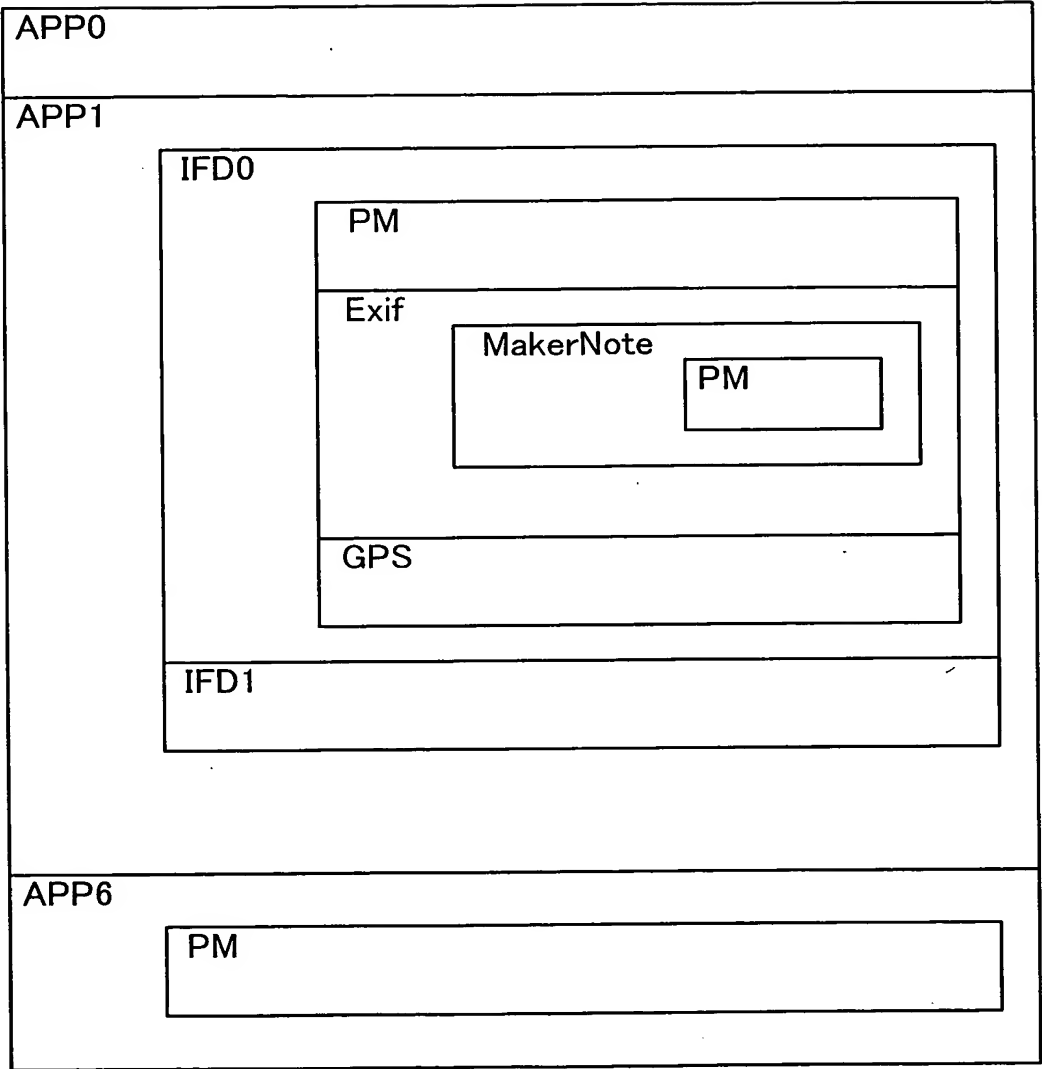


Fig.4



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•  
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Fig.5

Tag name	Parameter value
Light source	clear sky
Flash	<ul style="list-style-type: none"><li>• auto flash mode</li><li>• flash on</li><li>• reflected light sensor present</li><li>• reflected light sensed</li></ul>
Subject distance	1 (m)
Subject area	<ul style="list-style-type: none"><li>• center coordinates (640, 512)</li><li>• width (324)</li><li>• height (375)</li></ul>
Flash intensity	1000 (BCPS)
Aperture value	F8
ISO speed rate	100

●  
●  
●

Fig.6

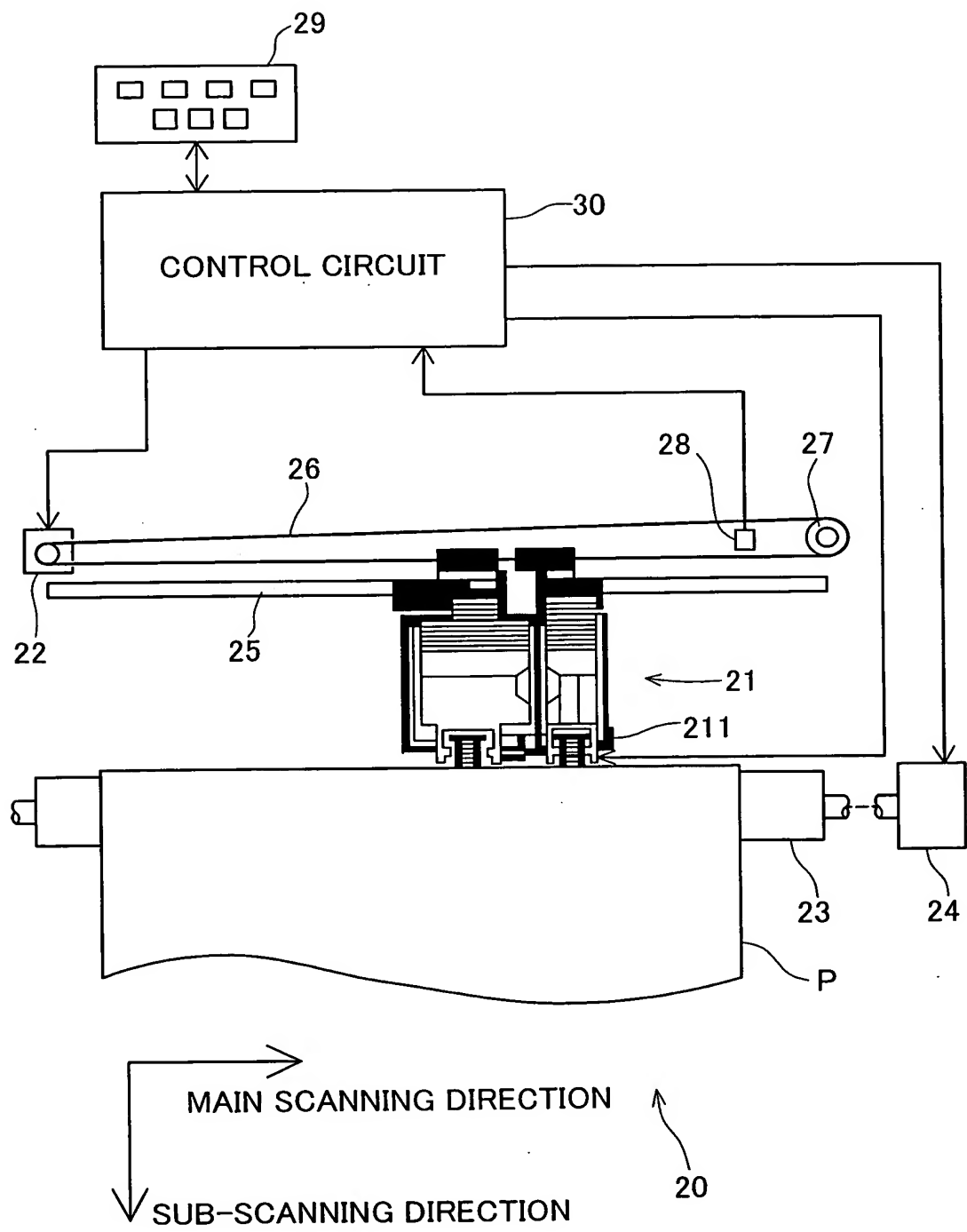


Fig.7

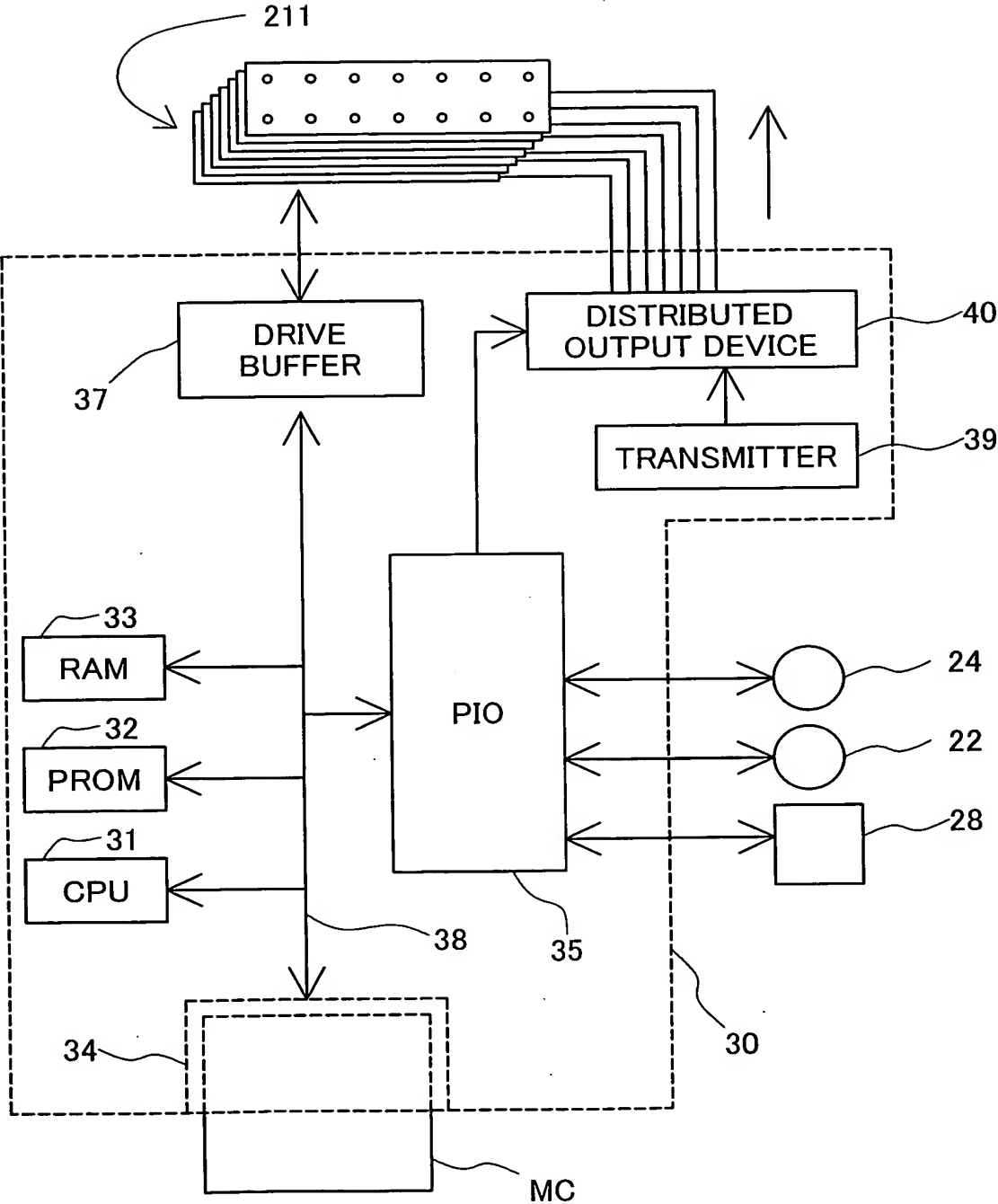


Fig.8

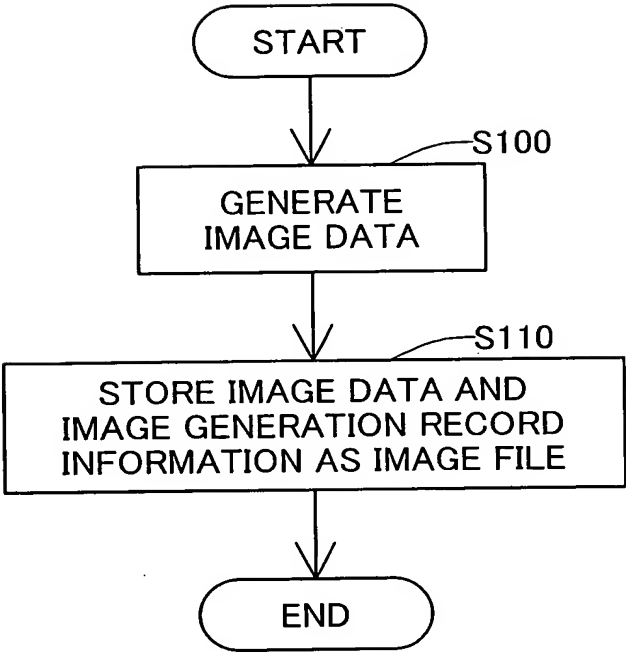


Fig.9

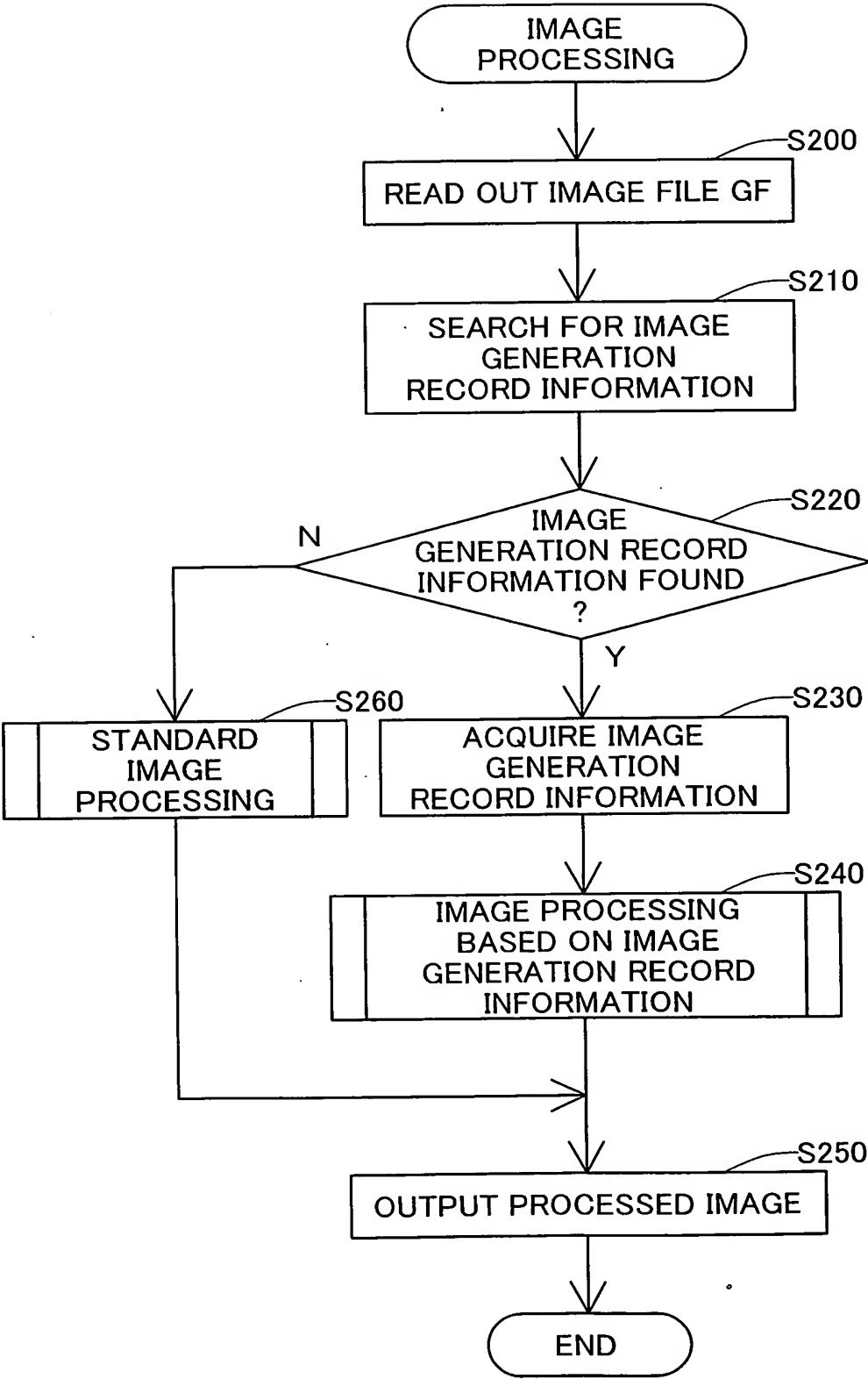




Fig.10

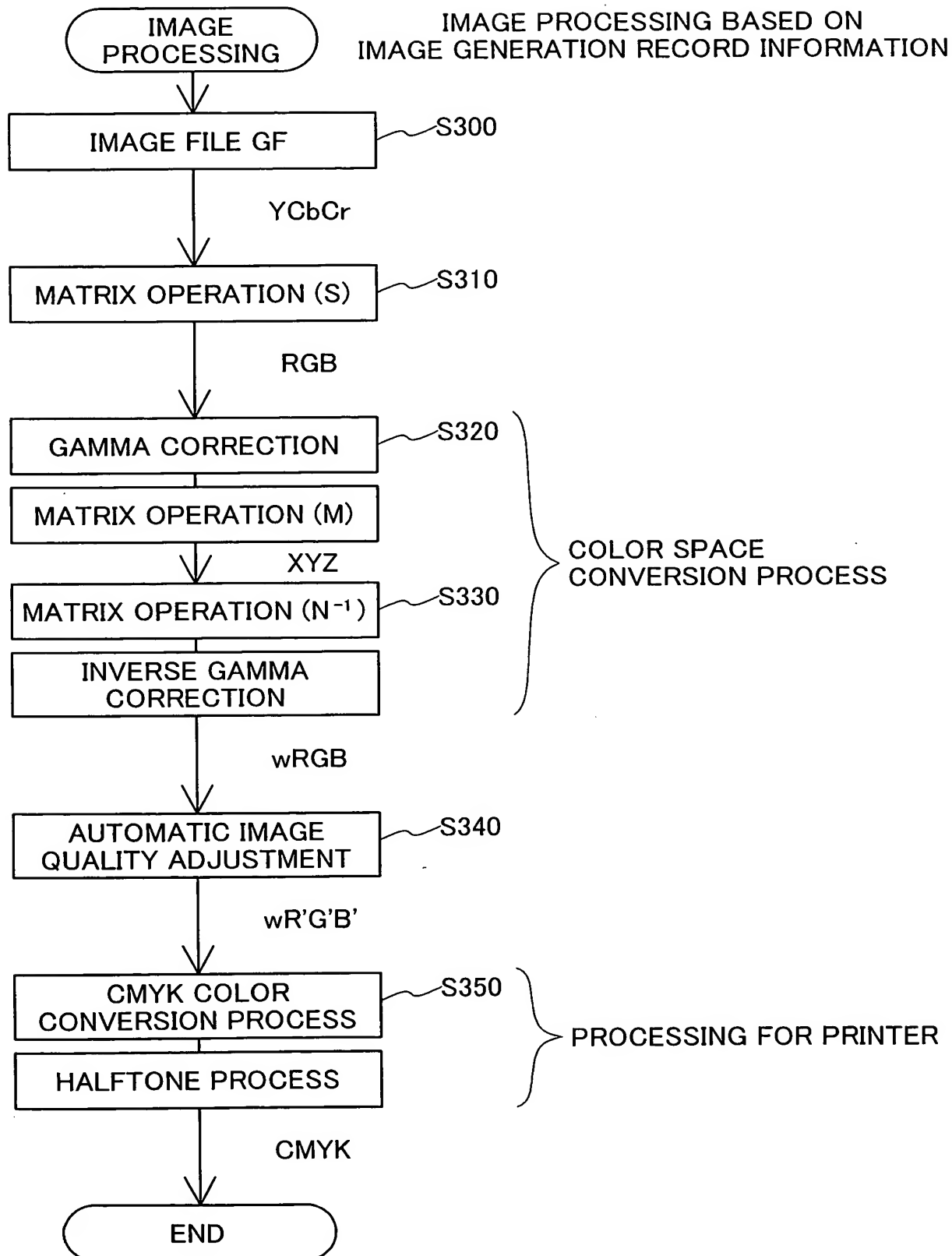


Fig.11

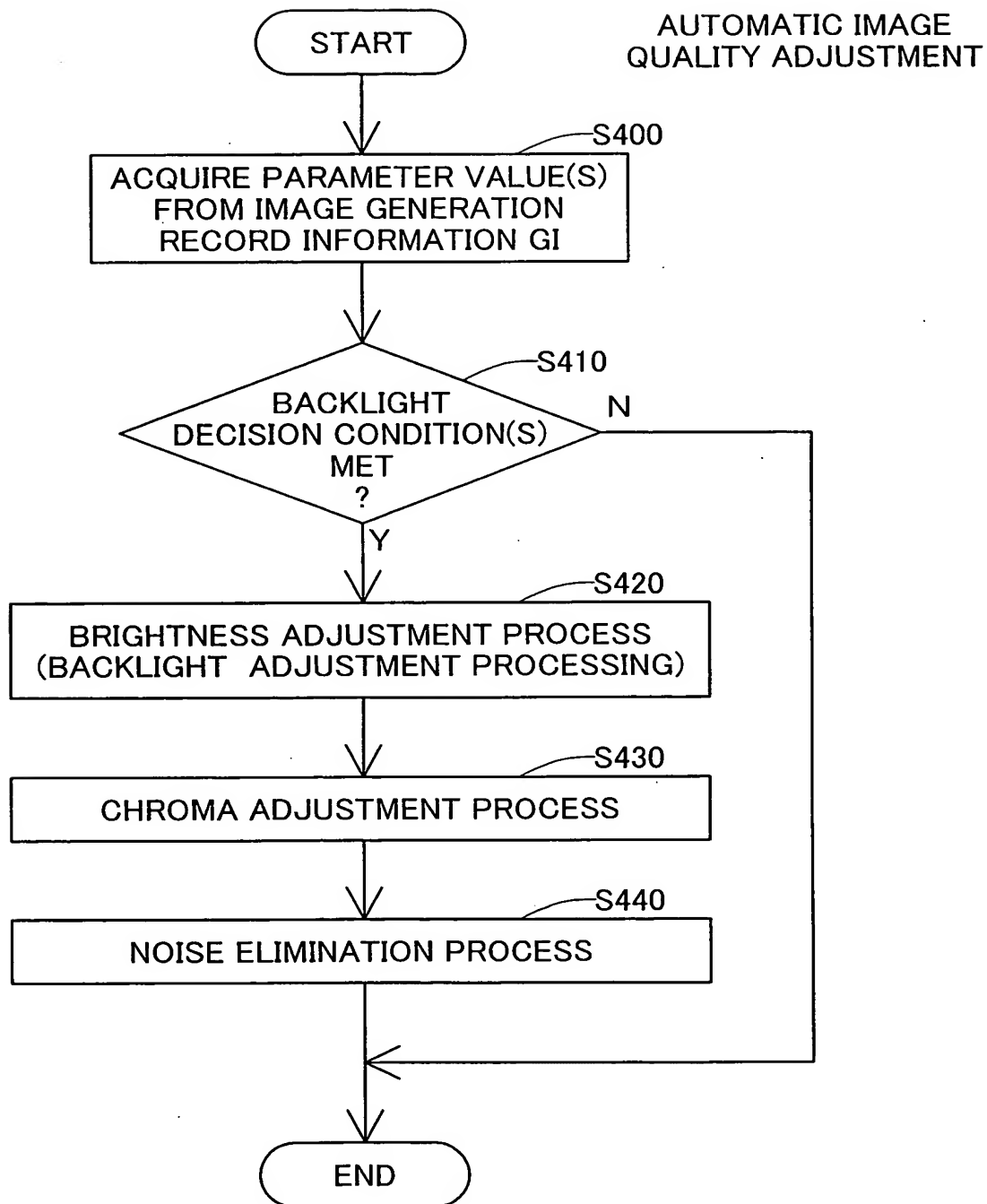


Fig.12(a)

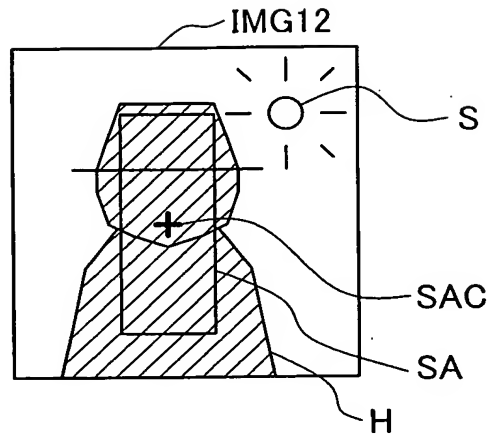


Fig.12(b)

BAave: average brightness value within subject area  
 Bave: average brightness value of entire image  
 k: predetermined constant

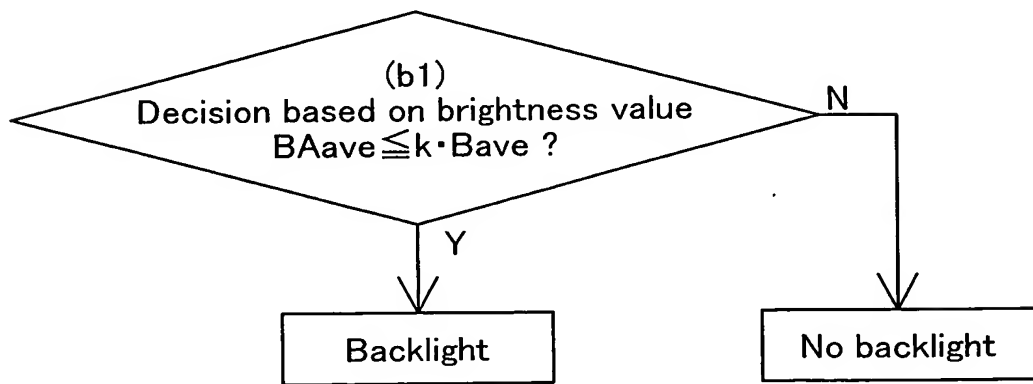


Fig.13(a)

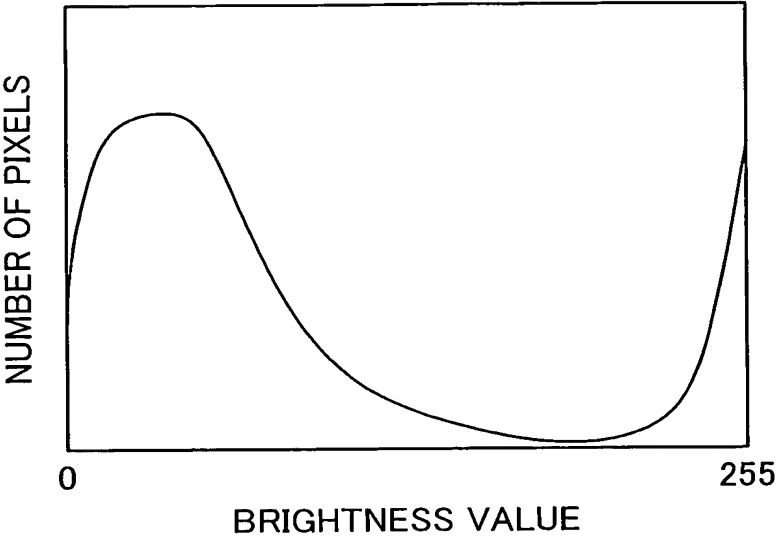


Fig.13(b)

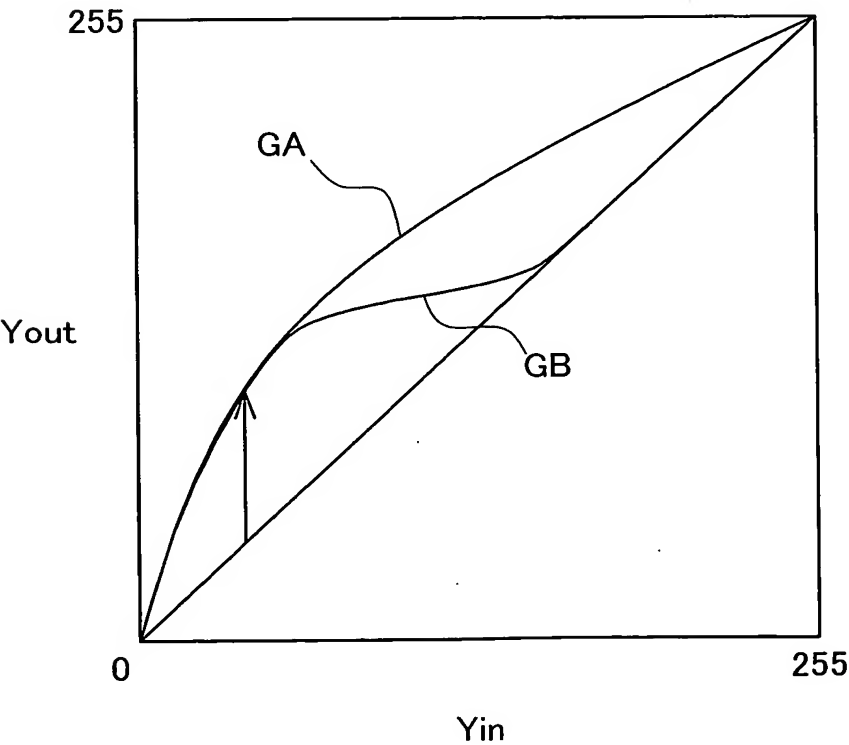


Fig.14(a)

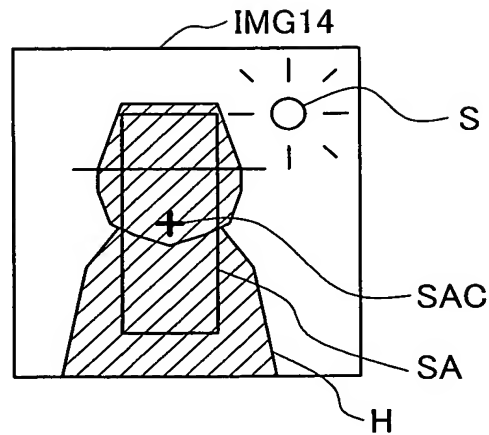


Fig.14(b)

BAave: average brightness value within subject area  
 Bave: average brightness value of entire image  
 k: predetermined constant

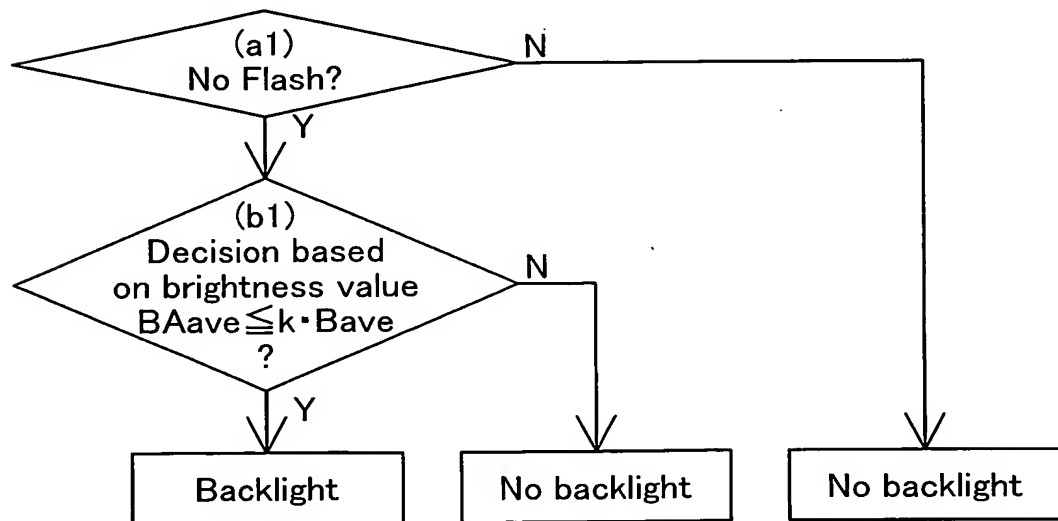


Fig.15(a)

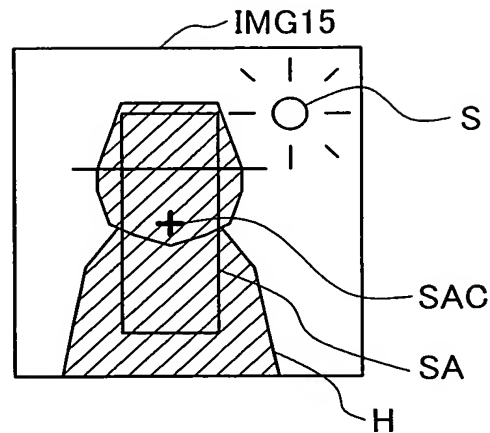


Fig.15(b)

BAave: average brightness value within subject area  
 Bave: average brightness value of entire image  
 k: predetermined constant

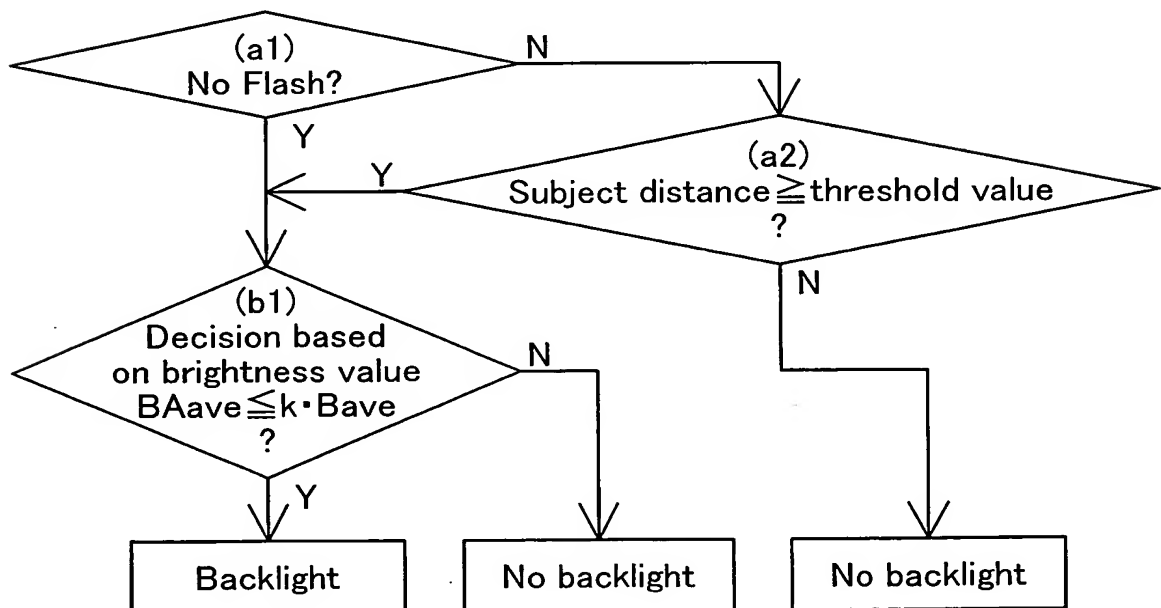


Fig.16(a)

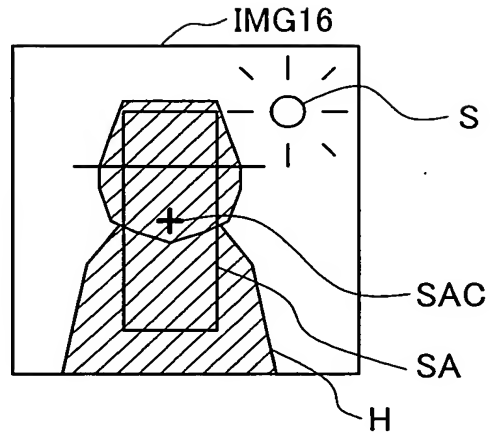


Fig.16(b)

BAave: average brightness value within subject area  
 Bave: average brightness value of entire image  
 k: predetermined constant

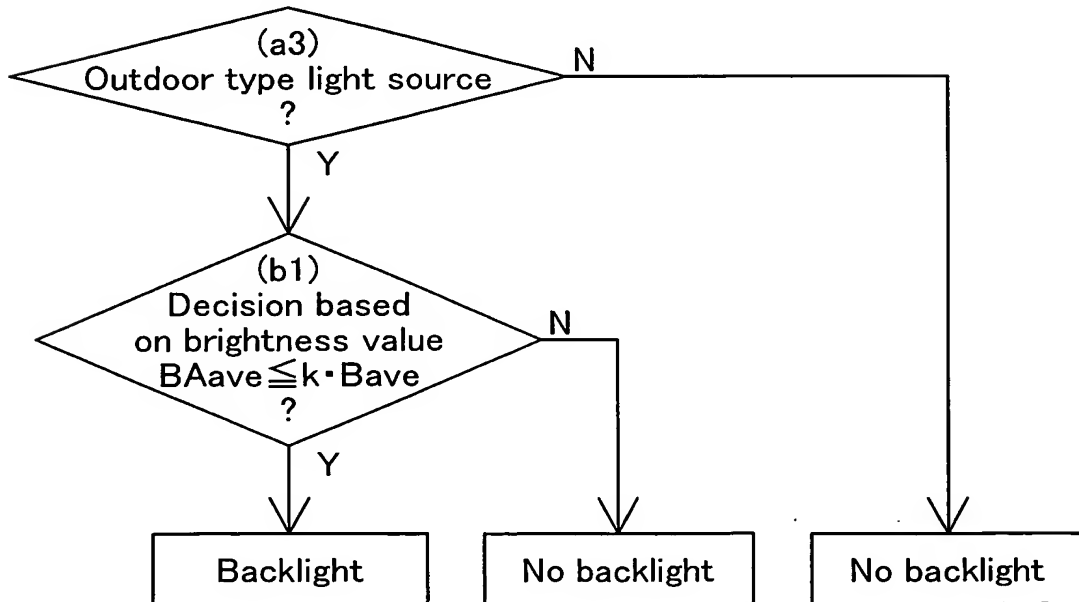


Fig.17(a)

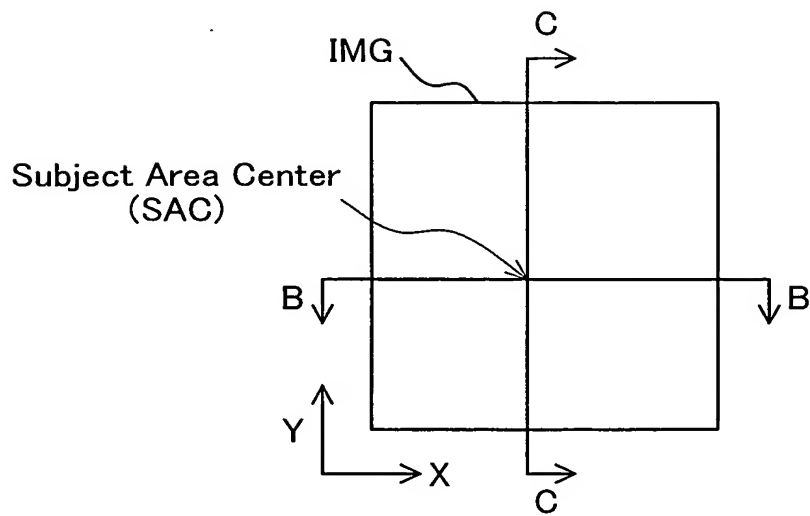


Fig.17(c)



Fig.17(b)





Fig.18(a)

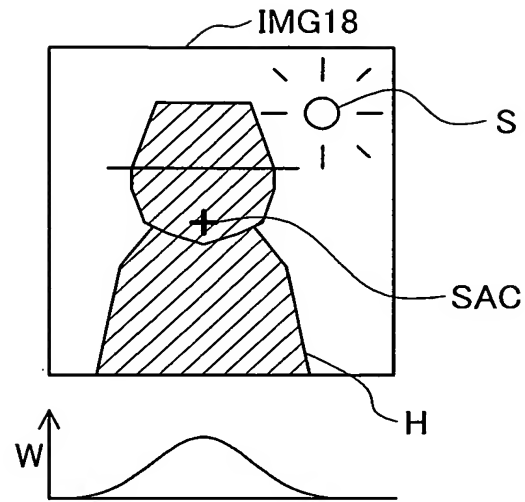


Fig.18(b)

BAWave: weighted average brightness value within subject area  
 Bave: average brightness value of entire image  
 k: predetermined constant

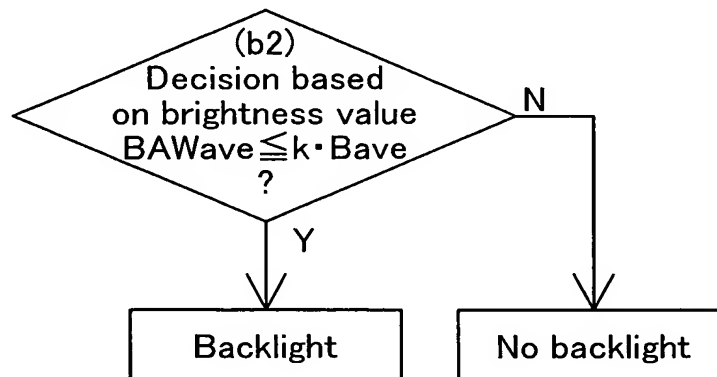


Fig.19(a)

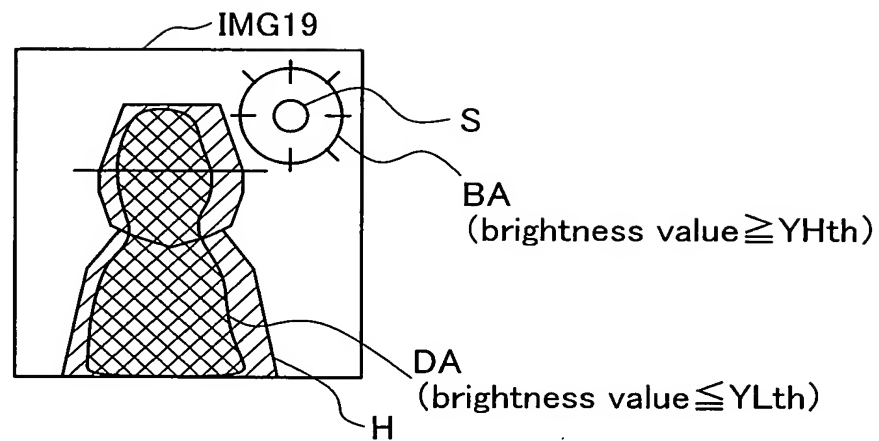


Fig.19(b)

Bratio: proportion of bright pixels (brightness value  $\geq YHth$ )  
 Bth: bright pixel proportion threshold value  
 Dratio: proportion of dark pixels (brightness value  $\leq YLth$ )  
 Dth: dark pixel proportion threshold value

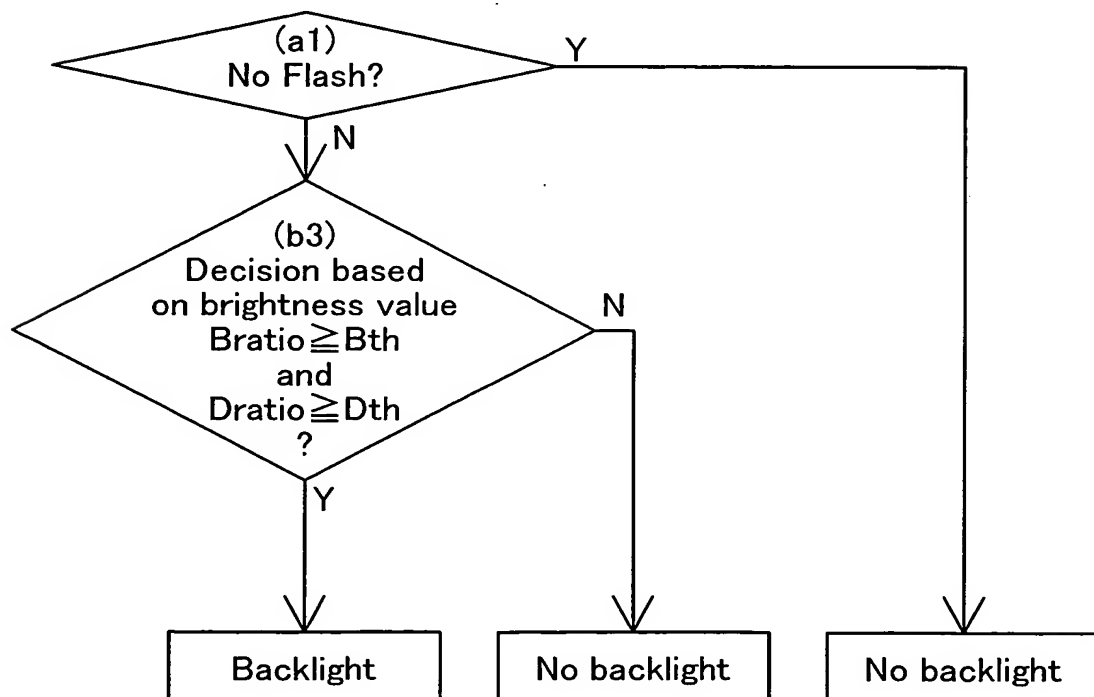


Fig.20

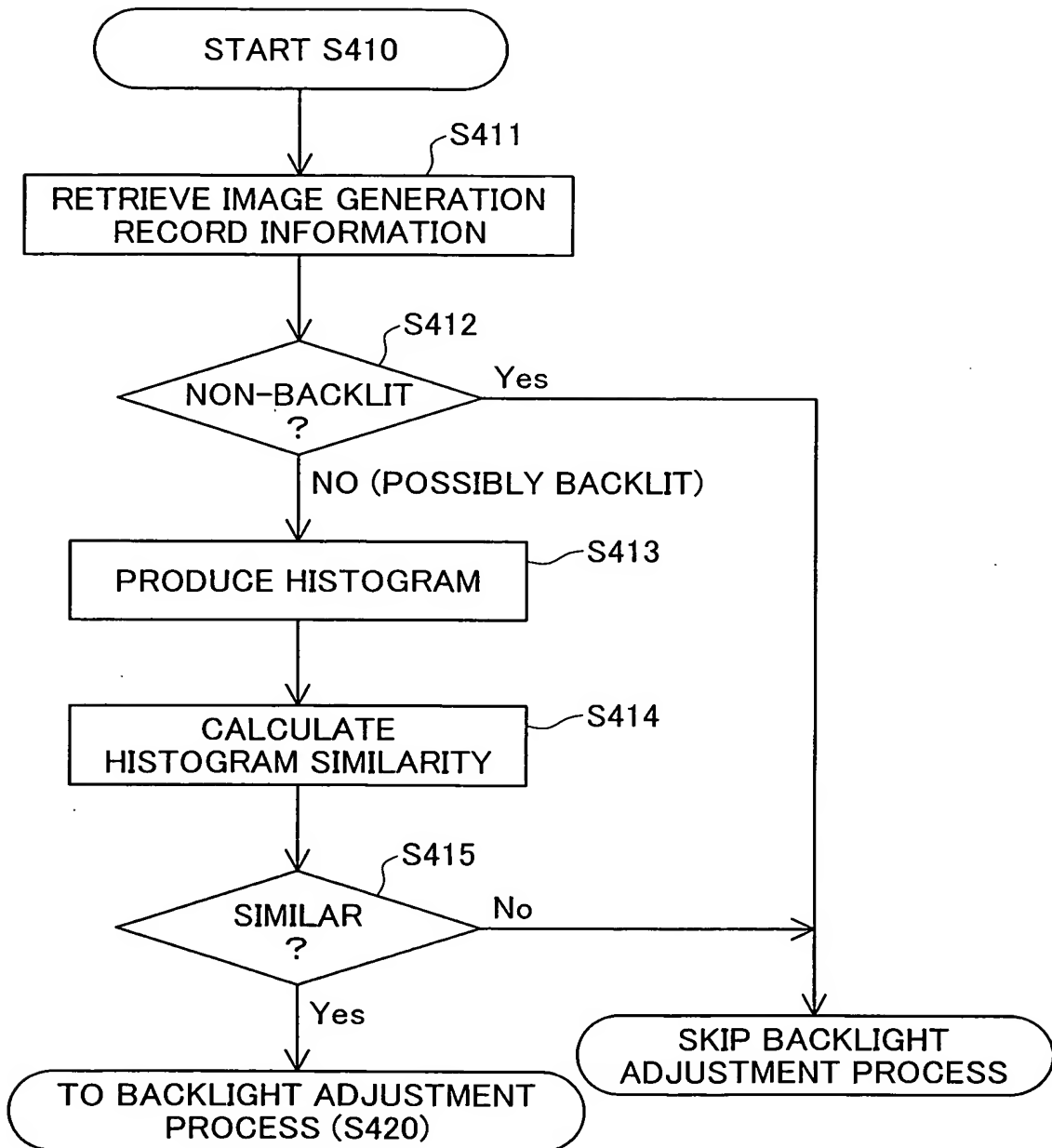


Fig.21(a)

TARGET IMAGE HISTOGRAM  $H_0$

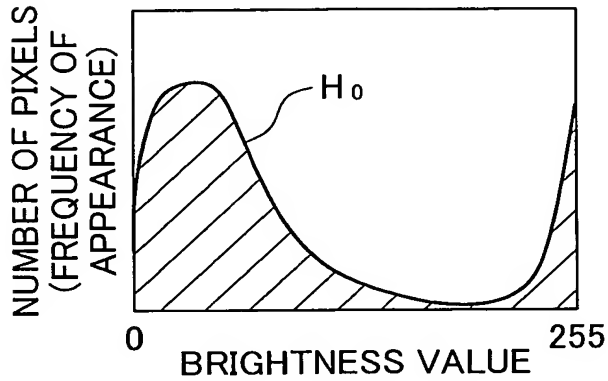


Fig.21(b)

SIMPLIFIED TARGET IMAGE HISTOGRAM  $H(j)$

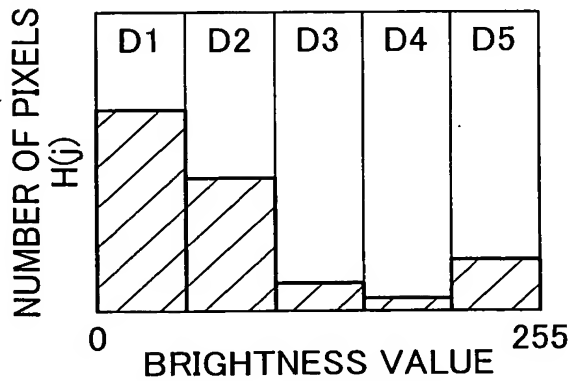


Fig.21(c)

REFERENCE HISTOGRAM  $G(j)$

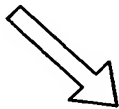
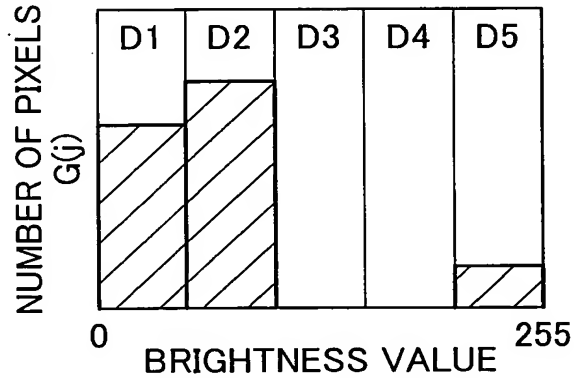


Fig.21(d) DETERMINATION OF SIMILARITY

$$SIM1 = \cos \theta = \frac{H(j) \cdot G(j)}{|H(j)| |G(j)|}$$

BACKLIT WHEN  $0.84 \leq SIM1$

NON-BACKLIT WHEN  $SIM1 < 0.84$

Fig.22(a)

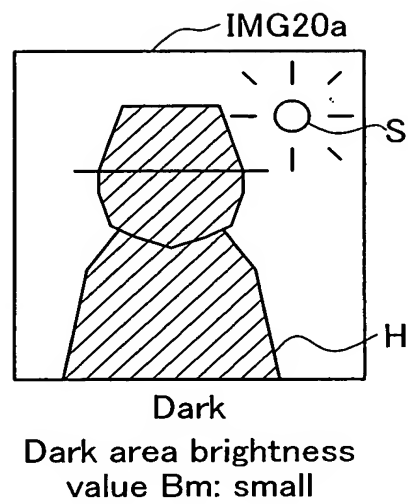


Fig.22(b)

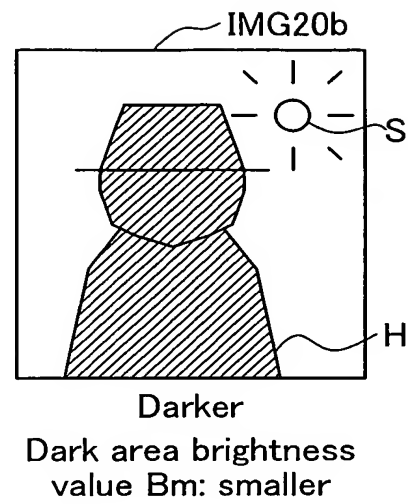


Fig.22(c)

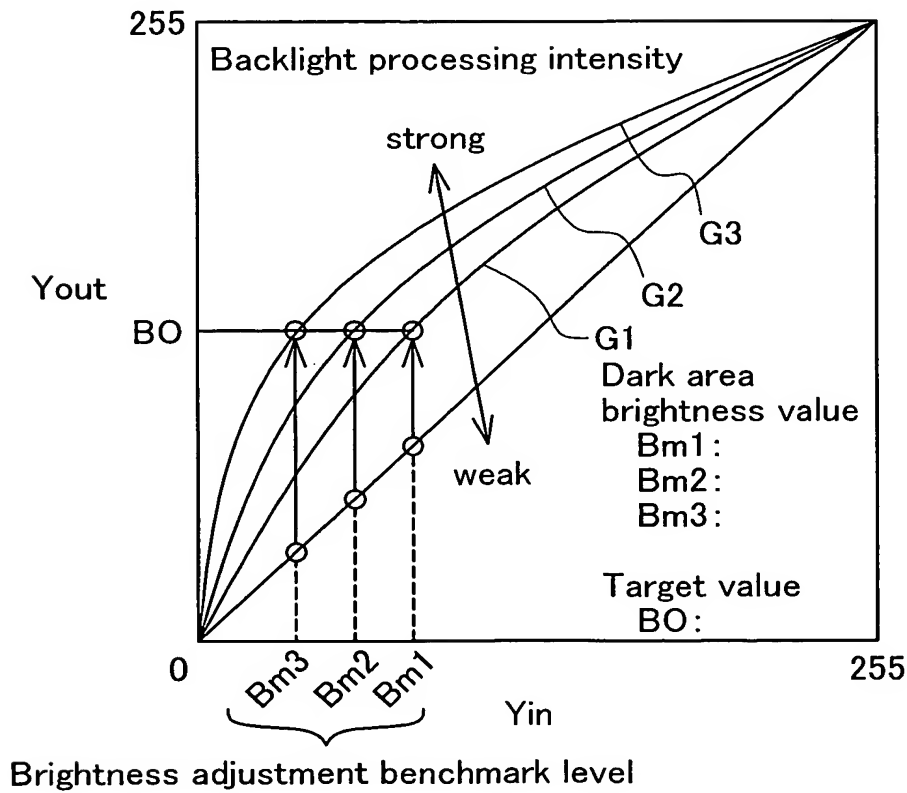


Fig.23(a)

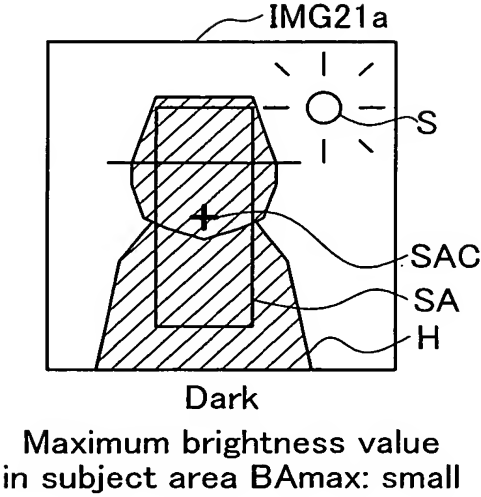


Fig.23(b)

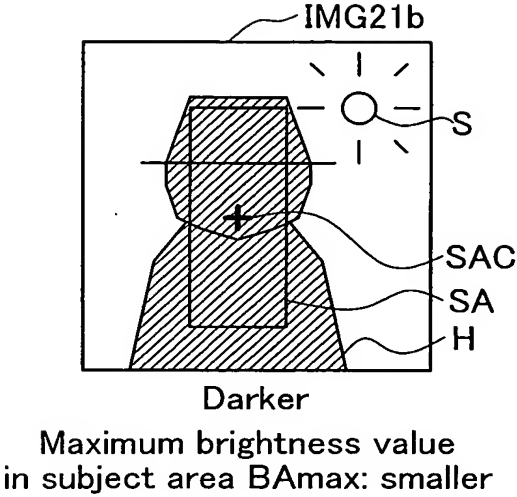


Fig.23(c)

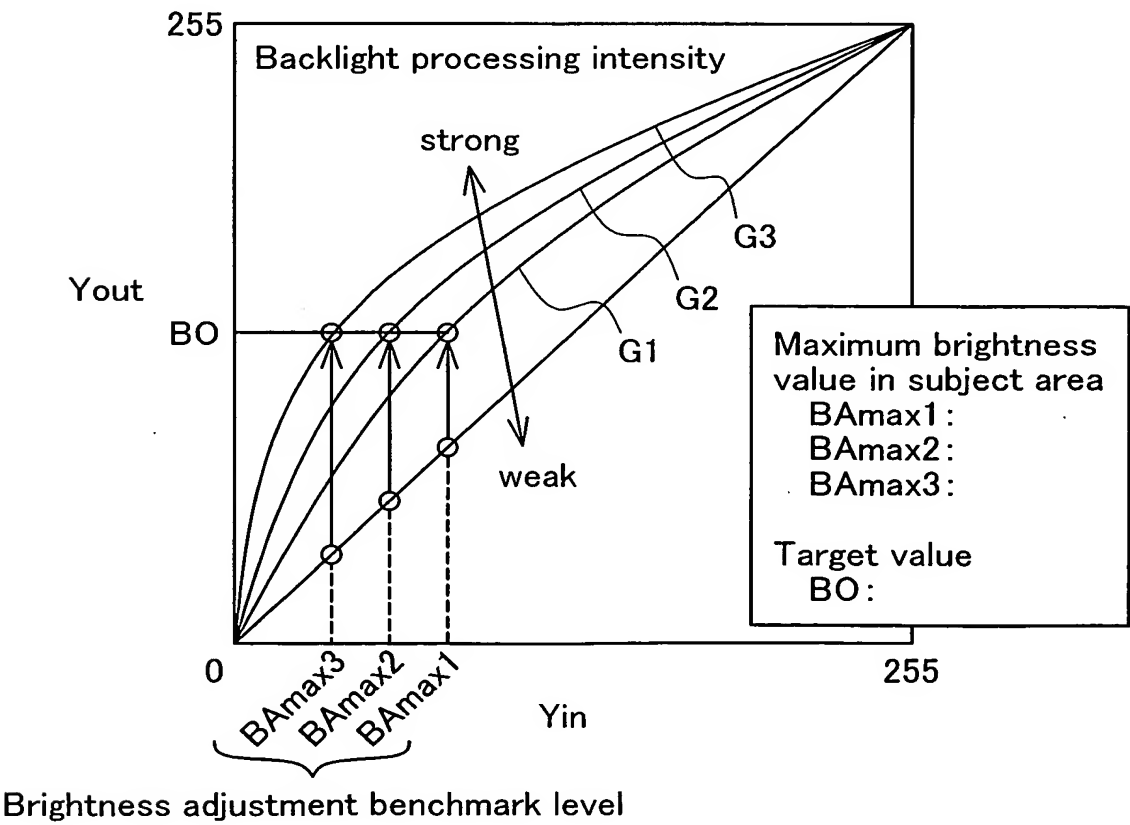


Fig.24

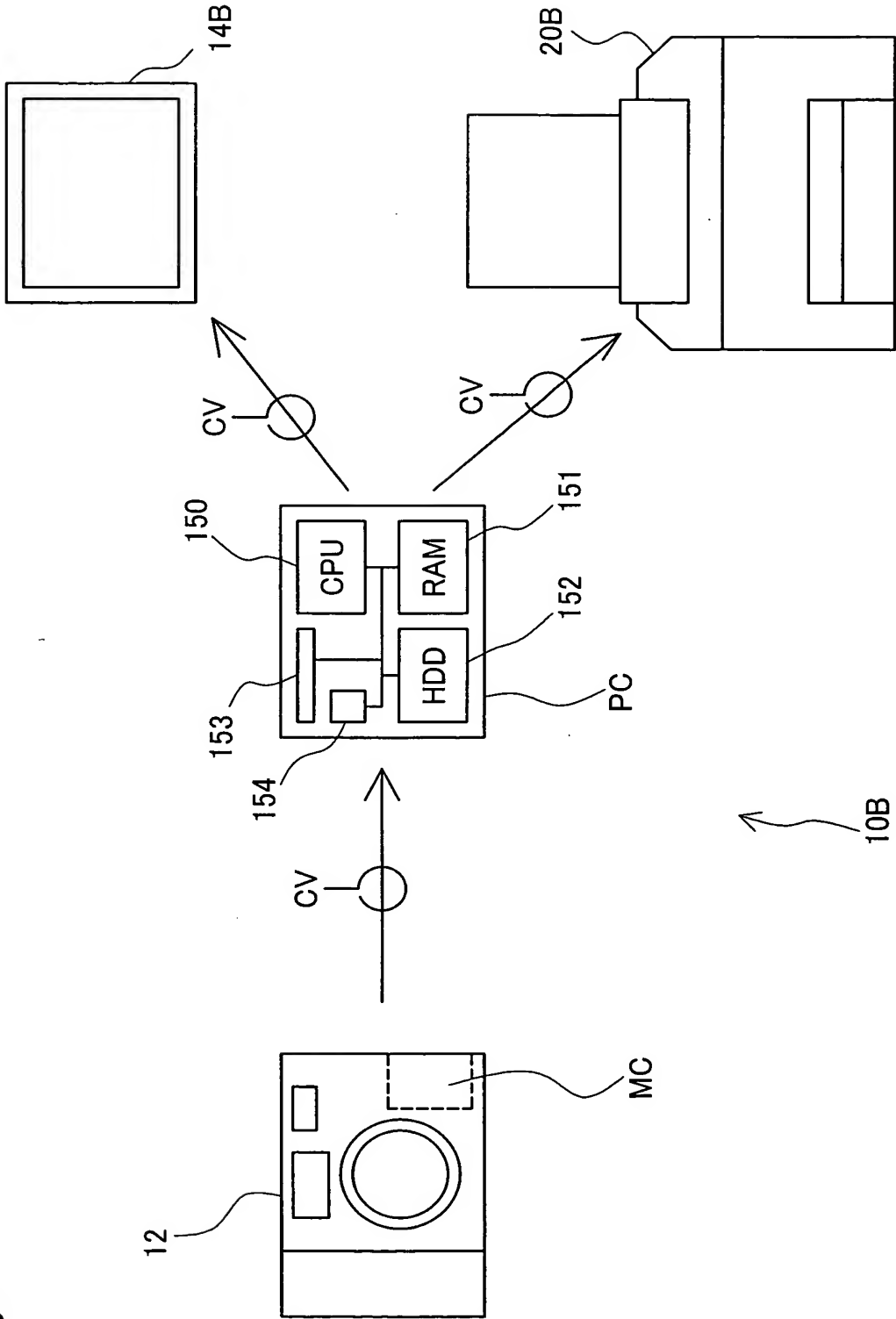


Fig.25

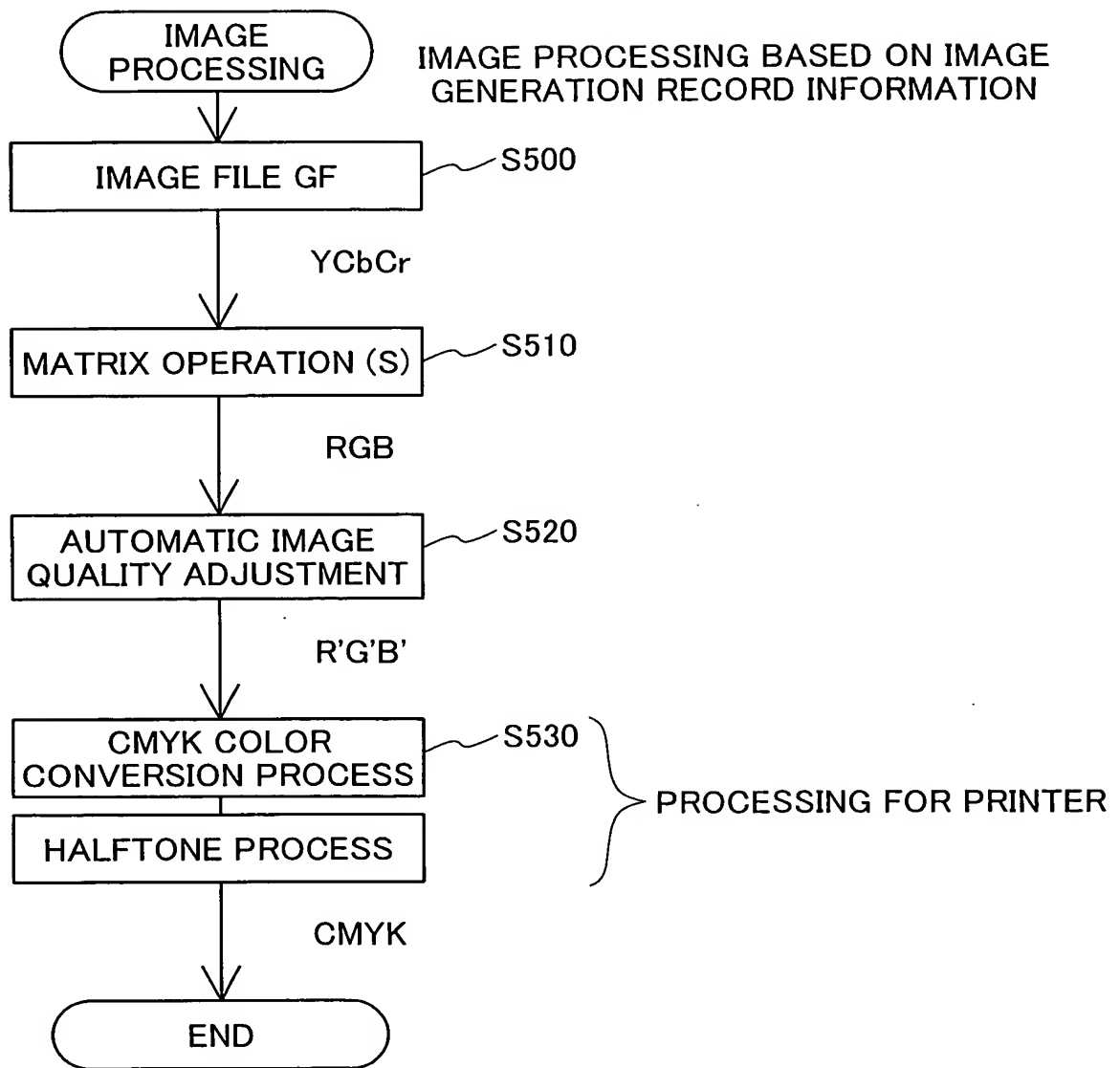




Fig.26

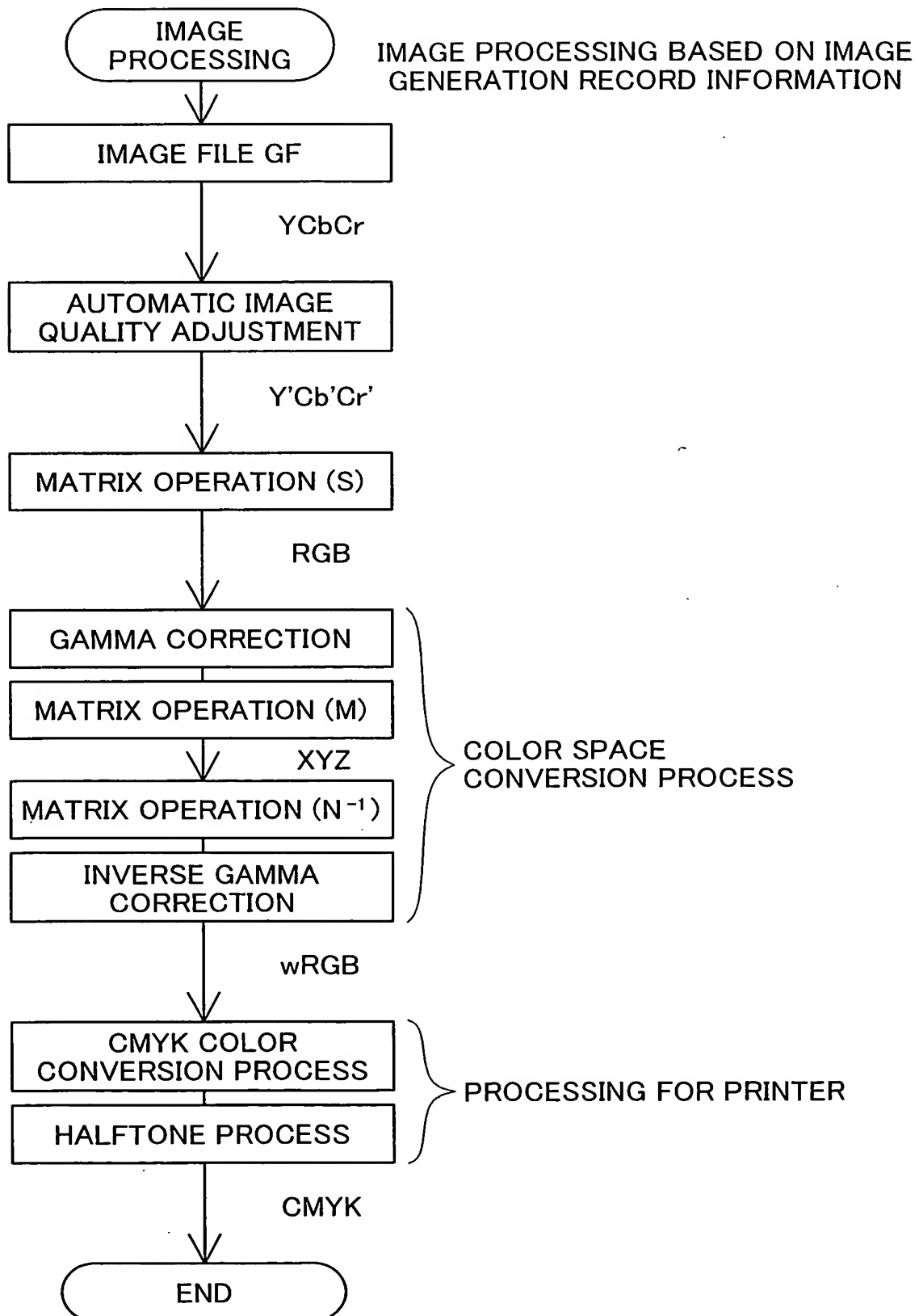


Fig.27

IMAGE PROCESSING BASED ON IMAGE  
GENERATION RECORD INFORMATION

